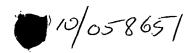# ABSTRACT OF THE DISCLOSURE

An object is authenticated by transmitting a random number to the object. The object has an integrated circuit chip including a memory and encryption circuitry. The memory stores information defining an encryption scheme preassigned to the object. The encryption circuitry reads the memory, and encrypts the random number according to the encryption scheme defined by the information read from the memory to produce encrypted data. The memory cannot be read from any output of the integrated chip, and the chip is constructed so that it is virtually impossible to recover the information contained in the memory by visual inspection, probing, or disassembly of the chip. The object is authenticated by checking whether the encrypted data is a correct result of encrypting the data using the encryption scheme pressigned to the object.